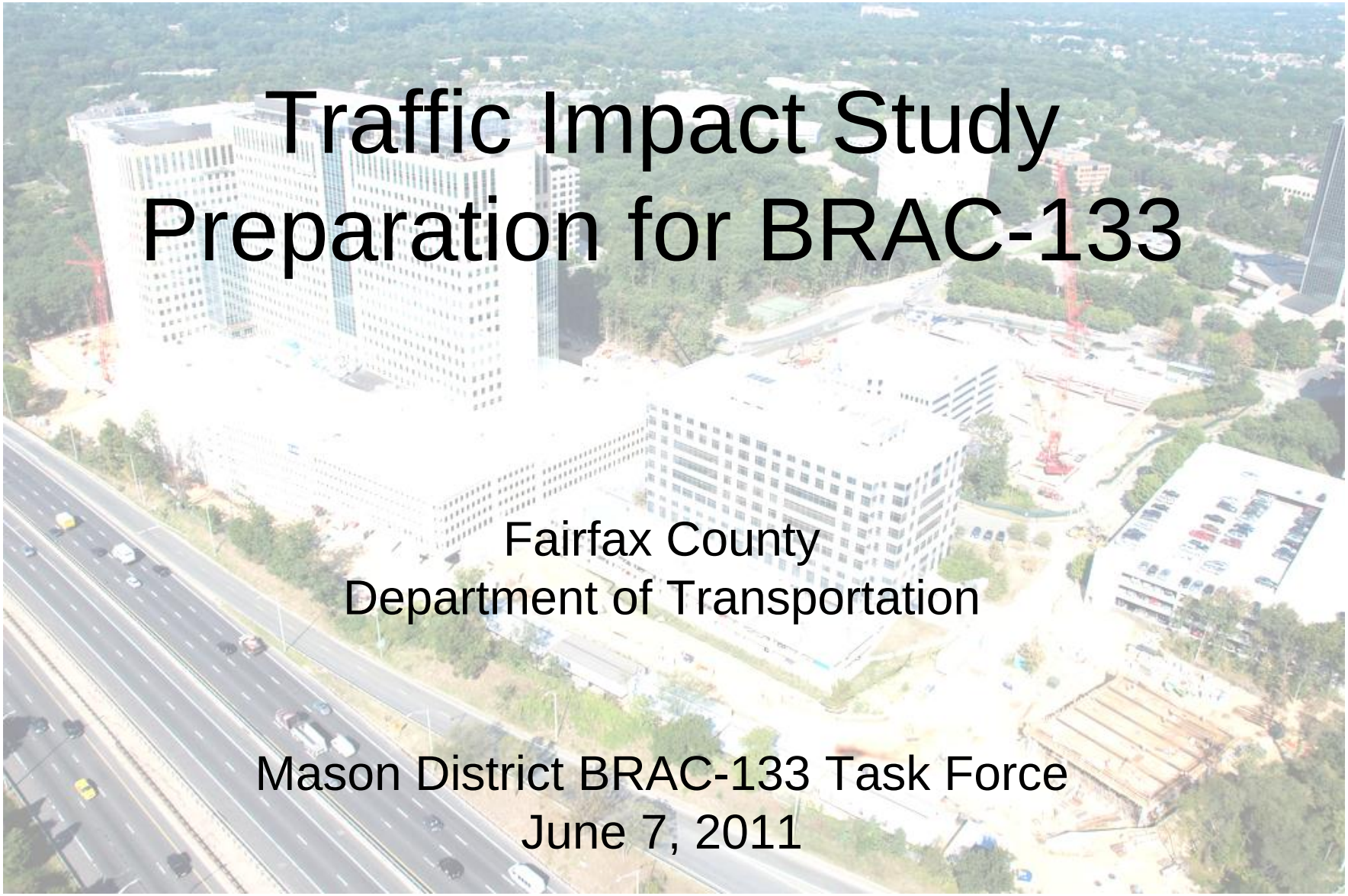


Traffic Impact Study Preparation for BRAC-133

Fairfax County
Department of Transportation

Mason District BRAC-133 Task Force
June 7, 2011

Traffic Impact Study

SOURCES

Proposed Comprehensive Plan Amendments:

- APR #09-I-1L
- APR #09-I-2L

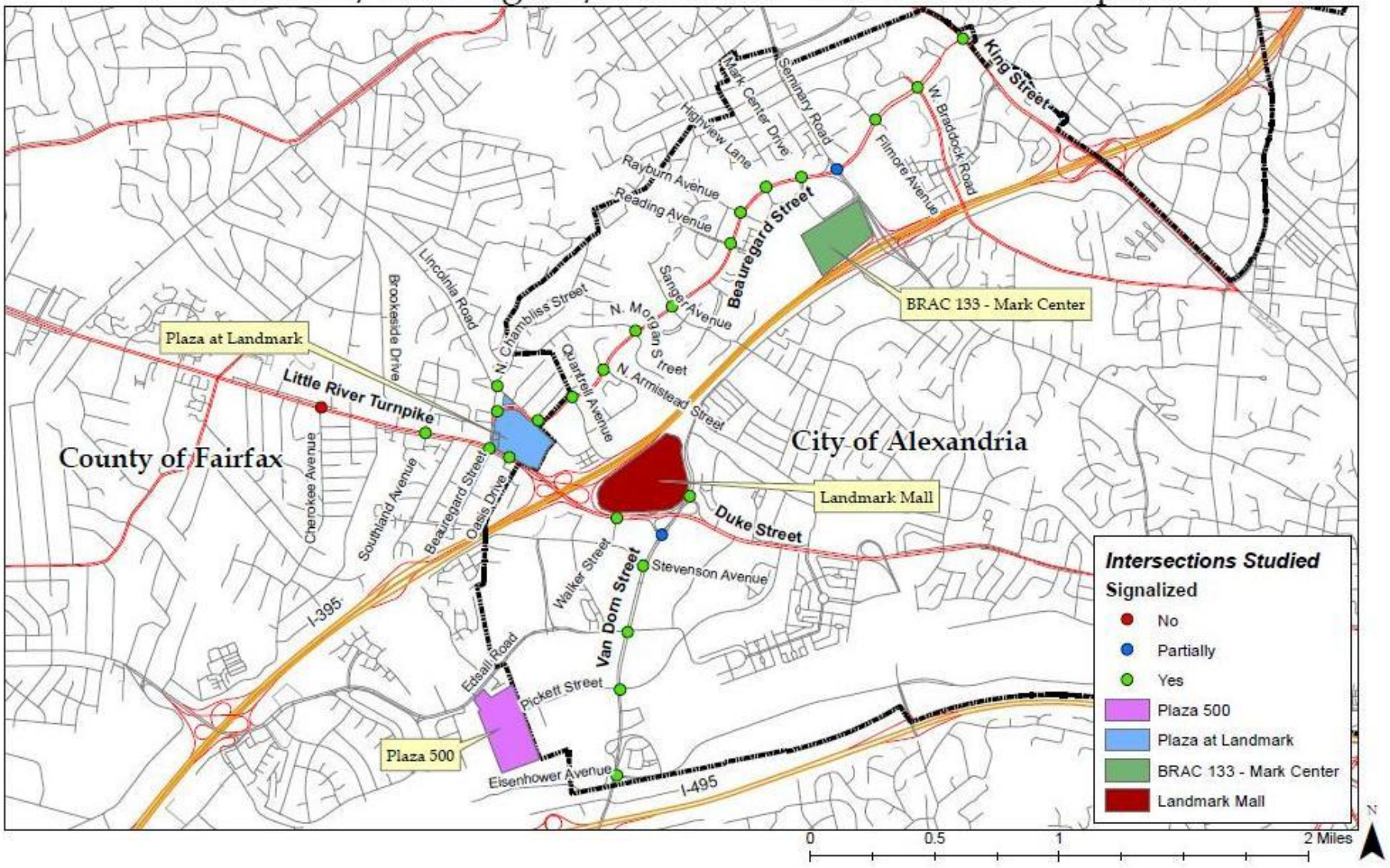
City of Alexandria Studies:

- Beauregard Corridor Plan
- Landmark Van Dorn Corridor Plan

VDOT Studies:

- Mark Center (BRAC 133) Access Study
- I-95/I-395 HOV/Bus/HOT Lanes Interchange Justification Report
- Route 236 Corridor Study

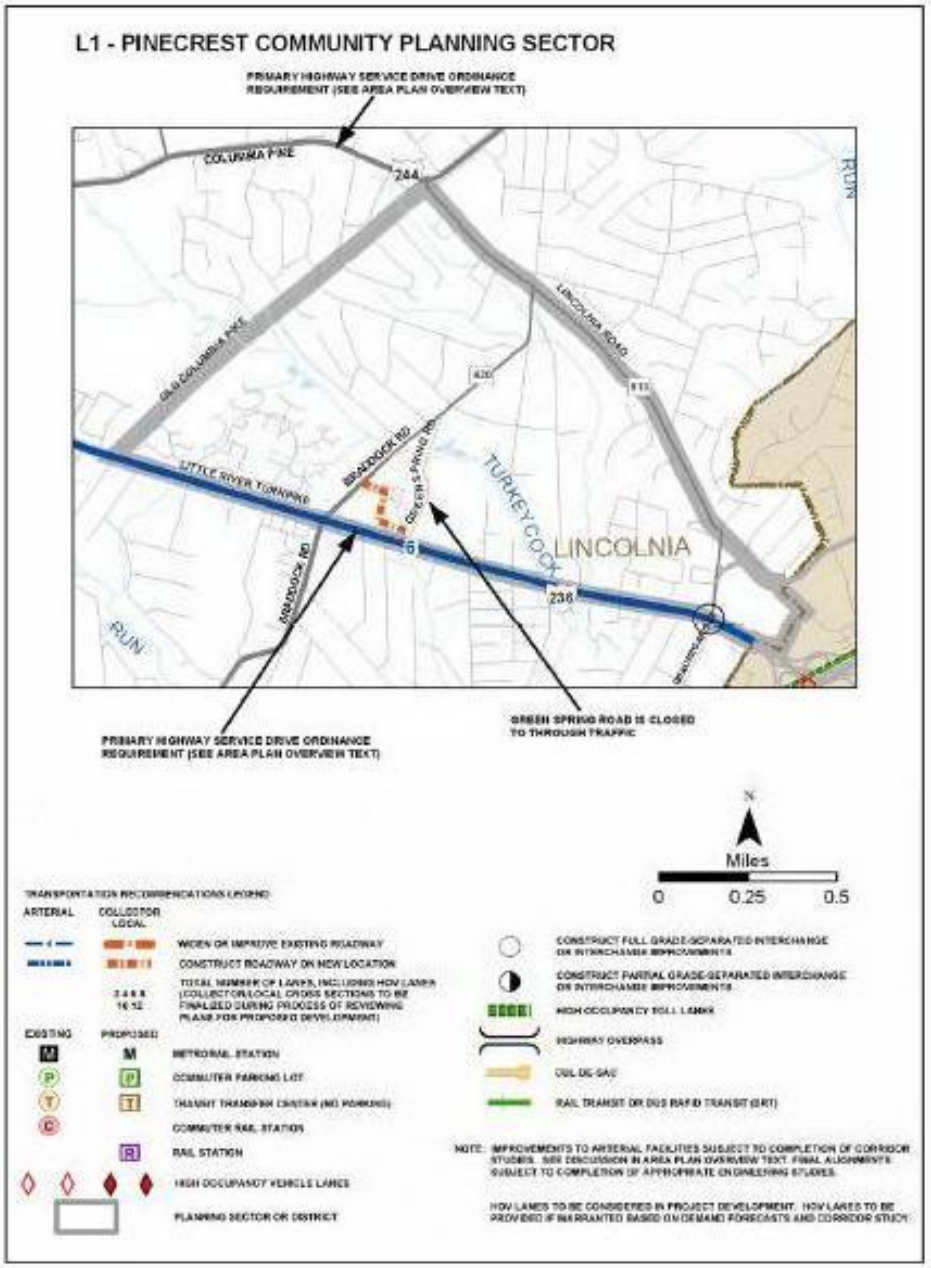
Route 236/Beauregard/Van Dorn - Mark Center Impacts



Current Comprehensive Plan

<u>Transportation Improvements</u>

- Route 236 (Little River Turnpike): Widen from 4 Lanes to 6 Lanes
- Route 236 (Little River Turnpike) At Beauregard Street: Intersection Improvements (Interchange Indicated)
  ** * NB-EB Fly-Over*
- Close Green Spring Road
- New Collector Road
  Route 236 to Braddock Road



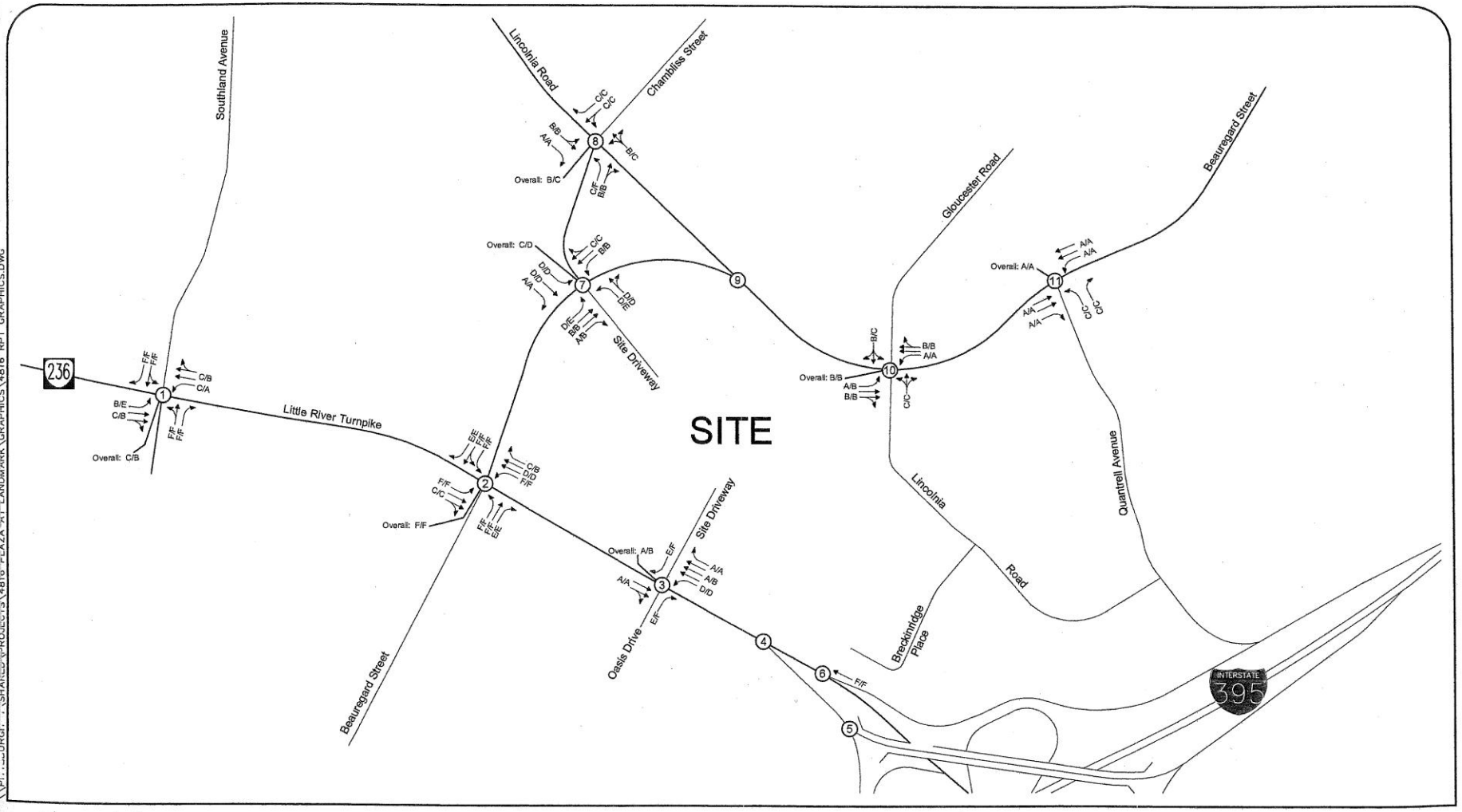


Figure 4–6
2030 Baseline Peak Hour Levels of Service

Landmark Plaza
Fairfax County, Virginia

Wells + Associates, Inc.

2030 Levels of Service (With BRAC)

Route 236 (Little River Turnpike) at Beauregard Street

2030 LEVELS OF SERVICE AND AVERAGE DELAY (WITH BRAC)

Route 236 (Little River Turnpike) at Beauregard Street

AM PEAK HOUR

	2010	2030
Overall Intersection Operation:	LOS E (57.8 sec)	LOS F (85.3 sec)

Failing: EBL(+37.6), WBL(+36.3), NBL(+26.1), NBT, SBL(+144.9), SBLT(+153.7)

PM PEAK HOUR

	2010	2030
Overall Intersection Operation:	LOS F (83.3 sec)	LOS F (89.3 sec)

Failing: EBL, WBL, NBL(+74.2), NBT, SBL(+67.9), SBLT(+68.8)

POTENTIAL SOLUTIONS

Additional SB Left Turn Capacity (Triple Lefts) – Right-of-Way Impacts

Route 236 (Little River Turnpike) at Cherokee Avenue

2030 LEVELS OF SERVICE AND AVERAGE DELAY (WITH BRAC)

Route 236 (Little River Turnpike) at Cherokee Avenue

AM PEAK HOUR

	2010	**2030**
NB Movement:	LOS F (325.7 sec)	LOS F (ERR sec)

Failing: NB, SB

PM PEAK HOUR

	2010	**2030**
NB Movement:	LOS F (106.1 sec)	LOS F (1026.5 sec)

Failing: NB, SB

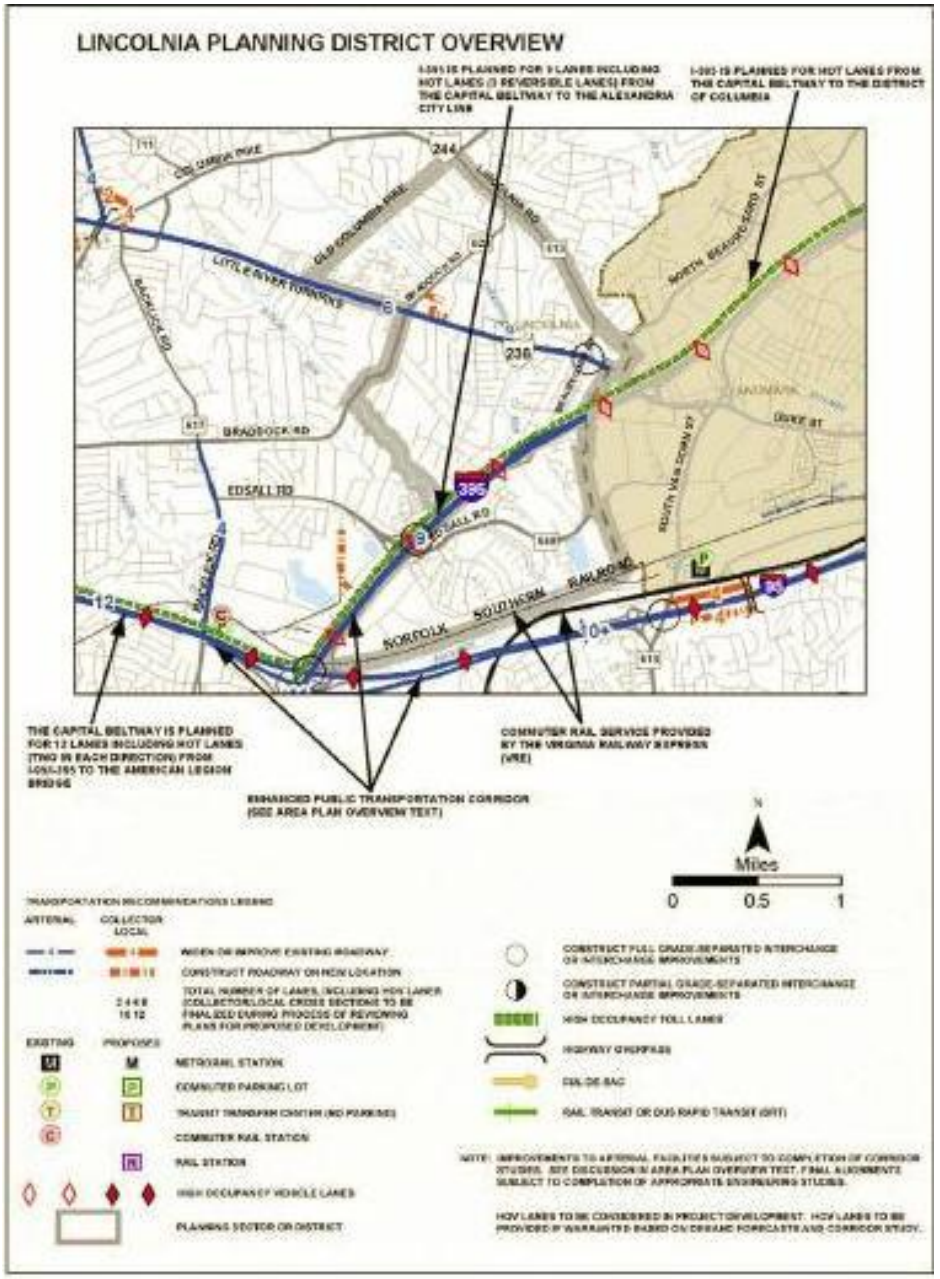
POTENTIAL SOLUTIONS

Exclusive NB Left Turn Lane

Current Comprehensive Plan

<u>Transportation Improvements</u>

- I-395:
  9 lanes, including HOV
- I-95/495:
  10+ lanes, including HOV



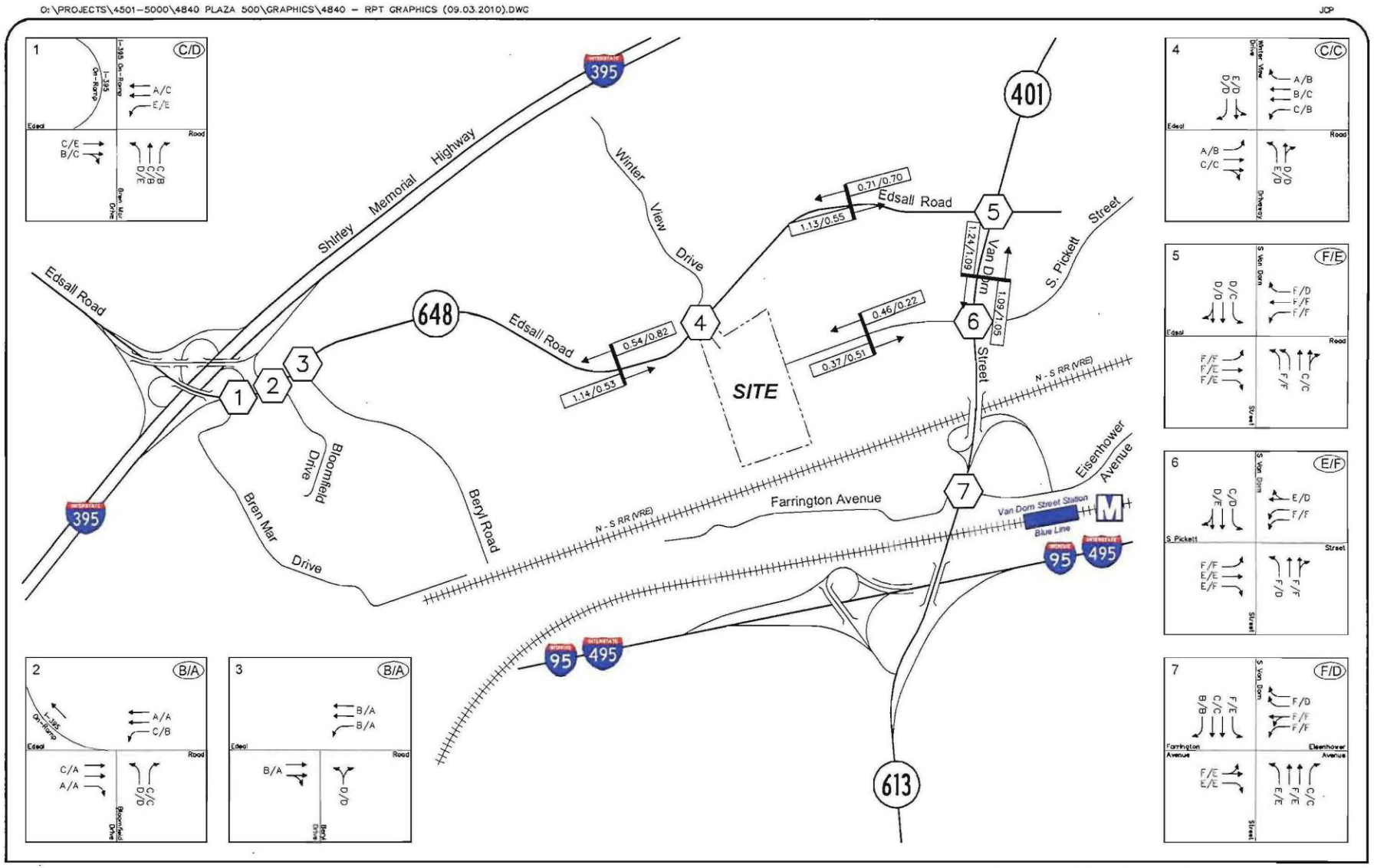


Figure 4-9
2030 Peak Hour Levels of Service With Existing Comprehensive Plan Land Use

Approach/Lane Movement
0.00/0.00 Link Volume-to-Capacity Ratio
A/A AM Level of Service/PM Level of Service
(A/A) Overall Intersection Level of Service
North

Plaza 500 (APR Nomination # 09-I-2L)
Fairfax County, Virginia

Wells + Associates Inc

2030 Levels of Service (With BRAC)

South Van Dorn Street at Edsall Road

2030 LEVELS OF SERVICE AND AVERAGE DELAY (WITH BRAC)

Route 613 (South Van Dorn Street) at Route 648 (Edsall Road)

AM PEAK HOUR

	2010	2030
Overall Intersection Operation:	LOS D (53.8 sec)	LOS F (354.6 sec)

Failing: EBL(+325.5),EBT(+142.6),EBR(+232.8),WBL(+1,096),WBT(+981),WBR(+85.2),NBL

PM PEAK HOUR

	2010	2030
Overall Intersection Operation:	LOS D (43.2 sec)	LOS E (64.3 sec)

Failing: EBL(+59.7), WBL(+54.9), WBT(+112.1), NBL

POTENTIAL SOLUTIONS

Widen South Van Dorn to 6 Lanes or Construct Transit-way in Median

South Van Dorn Street at South Pickett Street

2030 LEVELS OF SERVICE AND AVERAGE DELAY (WITH BRAC)

Route 613 (South Van Dorn Street) at South Pickett Street

AM PEAK HOUR

	2010	2030
Overall Intersection Operation:	LOS C (33.5 sec)	LOS E (77.9 sec)

Failing: EBL(+36.1), WBL, NBL(+262.2), NBTR(+50.6)

PM PEAK HOUR

	2010	2030
Overall Intersection Operation:	LOS D (40.7 sec)	LOS F (91.9 sec)

Failing: EBL(+21.3), EBR(+113), WBL(+24.7), NBTR(+69.9)

POTENTIAL SOLUTIONS

Widen South Van Dorn to 6 Lanes or Construct Transit-way in Median

South Van Dorn Street at Eisenhower Avenue

(Access to Van Dorn Metrorail Station)

2030 LEVELS OF SERVICE AND AVERAGE DELAY (WITH BRAC)

Route 613 (South Van Dorn Street) at Eisenhower Avenue

AM PEAK HOUR

	2010	**2030**
Overall Intersection Operation:	LOS D (49.3 sec)	LOS F (192.8 sec)

Failing: EBLT, WBL(+134.8), WBLT (+132.1), WBR(+416.3), NBT(+81.7), SBL(+65.7)

PM PEAK HOUR

	2010	**2030**
Overall Intersection Operation:	LOS D (35.1 sec)	LOS D (48.1 sec)

Failing: WBL, WBLT

POTENTIAL SOLUTIONS

Widen South Van Dorn to 6 Lanes or Construct Transit-way in Median